SEQUENCE LISTING

<110>   Abbas, Charles
         Voronovsky, Andrii
         Kshanovska, Barbara
         Fayura, Liubov
         Sibirna, Kateryna
         Sibirny, Andrii
         Dmytruk, Kostiantyn

<120>   Transformation Systems for Flavinogenic Yeast

<130>   1533.0830003

<140>   US 09/903,508
<141>   2001-07-13

<150>   US 60/218,244
<151>   2000-07-14

<150>   US 60/288,491
<151>   2001-05-04

<150>   US 60/290,667
<151>   2001-05-15

<160>   3

<170>   PatentIn version 3.1

<210>   1
<211>   1493
<212>   DNA
<213>   Candida famata

<220>
<221>   misc_feature
<222>   (576)..(576)
<223>   May be any nucleotide

<220>
<221>   misc_feature
<222>   (626)..(626)
<223>   May be any nucleotide

<220>
<221>   misc_feature
<222>   (966)..(966)
<223>   May be any nucleotide

<220>
<221>   misc_feature
<222>   (1000)..(1000)
<223>   May be any nucleotide

<220>
<221>   misc_feature
<222>   (1084)..(1084)
<223>   May be any nucleotide

<220>

```
<221>  misc_feature
<222>  (1149)..(1149)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1174)..(1174)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1197)..(1197)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1223)..(1223)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1226)..(1226)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1251)..(1251)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1268)..(1268)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1280)..(1280)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1318)..(1318)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1347)..(1347)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1375)..(1375)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1379)..(1379)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1382)..(1382)
```

```
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1385)..(1385)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1391)..(1391)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1410)..(1410)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1424)..(1424)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1428)..(1428)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1435)..(1435)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1437)..(1437)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1447)..(1447)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1457)..(1457)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1459)..(1459)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1472)..(1472)
<223>  May be any nucleotide

<220>
<221>  misc_feature
<222>  (1484)..(1484)
<223>  May be any nucleotide
```

```
<400>  1
cttgactgat tacgaattcg agctcggtac ccggggatca tgaatgctag tcttttttaca      60

ctgaatattt ttttaacgat tttttaataa ttttgcaatc atttaagaaa aaccacaaat     120

ggttttccaa aatttaaatt gattttttag aaagtcctaa aaaatagaat cataccaaat     180

aaagaacaac ttaaagtcac tatgacaaat tcagaaatac aatcgtatga tccgttcatg     240

gataaagctg caaagtcaca agcaaggcta actaagatcc tctagggga tcctctagag     300

tcgactacgt cgttaaggcc gtttctgaca gagtaaaatt cttgagggaa ctttcaccat     360

tatgggaaat ggttcaagaa ggtattgact taaactccat caaatggtca ggtcattgag     420

tgtttttat ttgttgtatt ttttttttt tagagaaaat cctccaatat ataaattagg     480

aatcatagtt tcatgatttt tagagaaaat cctccaatat ataaattagg aatcatagtt     540

tcatgatttt ctgttacacc taactttttg tgtggngccc tcctccttgt caatattaat     600

ctgttacacc taactttttg tgtggngccc tcctccttgt caatattaat gttaaagtgc     660

aattctttt ccttatcacg ttgagccatt agtatcaatt gttaaagtgc aattctttt     720

ccttatcacg ttgagccatt agtatcaatt tgcttacctg tattccttta catcctcctt     780

tttctccttc ttgataaatg tgcttacctg tattccttta catcctcctt tttctccttc     840

ttgataaatg tatgtagatt gcgtatatag tttcgtctac cctatgaaca tattccattt     900

tatgtagatt gcgtatatag tttcgtctac cctatgaaca tattccattt tgtaatttcg     960

tgtcgnttct attatgaatt tcatttataa aggttatgtn tgtaatttcg ggcgtttcta    1020

ttatgaattt catttataaa gtttatgtcc aatatcataa aaaaagagaa tctttttaag    1080

caanggattt cttaactcaa atatcataaa aaaagagaat cttttaagc aagggatttt    1140

cttaacttnt tcggggacgc atccccgctt cggnggactg gtggacccct aaatctnttc    1200

ggcgacagca tcccgacttc ggnggnactg tggaacccct aaatcccagt ntgatcctgc    1260

ttccaaanct tttactggtn ttcatgggcc tacccccagtt ctgaacctgc atccaaanct    1320

tttactgctc ttcaagggct taccttntca ggcaggtcaa tgacaattca catcntgcnc    1380

anacnaaaaa nggcttttca gcaggtcaan gcaatttcac atcntgcnca aaaananagt    1440

ggcgatnggg tgacctntnt ttggcaacga tngggtgacc tatntttgca aac    1493


<210>  2
<211>  414
<212>  DNA
<213>  Pichia guilliermondii

<400>  2
tatgcacatt cgcacgccga ggtgcagcgt ttaggcgcgg ctcaacggaa gccaacggcc      60

gccacaaatt gtccggaaag tcgccgaaac tgatccactg gtaccacagc cccataagaa     120
```

```
cccccttttaa tattaaaaac cgttcttcag ccacttttga tcacattgtt tgcagccgcc    180

cgttgctgcc atccaaacac cacgcgtccc ccgcacccct ttacggtgcc cactgcattg    240

gaatttgcat aaaacagcct cacgaagtgg attaattttt agagcactca agtcatcatg    300

ctgcaatctc tgcatcatga aatgactccc gttgatacag ggaactcaga ccgcaagcgg    360

cgaagagtca caagagcgtg tgatgtgtgt cgactctaga ggatccccgg gtac          414
```

```
<210>  3
<211>  487
<212>  DNA
<213>  Candida famata

<220>
<221>  misc_feature
<222>  (415)..(415)
<223>  May be any nucleotide

<400>  3
tgattacgaa ttcgagctcg gtacccgggg atcatgaatg ctagtctttt tacactgaat     60

attttttttaa cgattttttta ataattttgc aatcatttaa gaaaaaccac aaatggtttt   120

ccaaaattta aattgatttt ttagaaagtc ctaaaaaata gaatcatacc aaataaagaa    180

caacttaaag tcactatgac aaattcagaa atacaatcgt atgatccgtt catggataaa    240

gctgcaaagt cacaagcaag gctaactaag atcctctaga gtcgactacg tcgttaaggc    300

cgtttctgac agagtaaaat tcttgaggga actttcacca ttatgggaaa tggttcaaga    360

aggtattgac ttaaactcca tcaaatggtc aggtcattga gtgttttta tttgntgtat     420

tttttttttt ttagagaaaa tcctccaata tataaattag gaatcatagt ttcatgattt    480

tctgtta                                                              487
```